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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,817	03/29/2005	Stijn Hermannus Wilhelmus Ossevoort	62780.000003	7001

21967 7590 03/22/2007

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EXAMINER	
SHERMAN, STEPHEN G	
ART UNIT	**PAPER NUMBER**
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,817	OSSEVOORT ET AL.	
	Examiner	Art Unit	
	Stephen G. Sherman	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 12-14* is/are rejected.

7)☒ Claim(s) *8-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed the 20 February 2007. Claims 1-14 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-8 and 12-14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 4 is objected to because of the following informalities:

The claim states: "when the sensor of one circuit (the "detecting circuit") detects the..." The use of parentheses in claims is generally reserved for reference characters. Please refer to MPEP 608.01 (m).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-4, 7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes (US 6,354,714) in view of Mueller et al. (US 2005/0116667).

Regarding claim 1, Rhodes discloses an illuminating surface that, when connected to a power source, emits light in the presence of an object touching or in close proximity to the surface, which surface comprises:

an array of sensors for detecting the presence of the object (Column 3, lines 41-50 explain that there is a series of motion sensors.);

an array of light sources (Figure 1 and column 3, lines 41-50 explain that there is LED lighting 100.), when one of said sensors detects the presence of the object, the light sources are illuminated (Column 3, lines 41-50 explain that when the sensors detect an object the LED lighting 100 is turned on.);

a circuit for controlling the illumination of each light source such that it remains illuminated for a time after the sensors has ceased to detect the presence of the object (Column 3, lines 41-50 explain that when the sensors detect the presence the lighting

100 is turned on and that these lights remain on until another series of sensors detect that the object has left, therefore the lights remain on after the first sensors stop detecting.); and

wherein adjacent light sources are illuminated when the sensor detects the presence of an object, thereby causing an area of the surface to emit light that corresponds to and is larger than the shape of the object (Figure 1 shows that a plurality of the light sources 100 are illuminated when the sensors detect the presence of an object, there the area of the light emitting surfaces 100 is larger than the airplane shown in Figure 1.).

Rhodes fails to teach wherein each light source is associated with at least one sensor, such that when one of said sensors detects the presence of the object, its associated light source is illuminated.

Mueller et al. disclose of an illuminating surface wherein each light source is associated with at least one sensor, such that when one of said sensors detects the presence of the object, its associated light source is illuminated (Paragraphs [0304] and [0342] explain that each tile has its own sensor and light source such that the tile can be illuminated individually based on the presence of a user.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the light sources taught by Rhodes each have their own sensor as taught by Mueller et al. in order to provide for an illumination system where power can be conserved by allowing for the individual detection by light sources

such that the light sources can stop illuminating individually after an object is gone rather than turning all of the light sources off at end.

Regarding claim 2, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 1.

Mueller et al. also disclose an illuminating surface which includes an array of circuits, each circuit comprising at least one sensor and at least one light source (Paragraph [0342] and Figure 61).

Regarding claim 3, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 2.

Rhodes also discloses wherein each circuit has its own power supply (Column 4, lines 11-17.).

Mueller et al. also disclose wherein each circuit is not under the control of a central processor for the surface (Figures 2 and 3).

Regarding claim 4, Please refer to the rejection of claim 1.

Regarding claim 7, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes also discloses wherein each detecting circuit is energisable from a power source when its sensor detects the presence of an object touching or in close proximity

to the surface, thereby illuminating the light source of that circuit (Column 4, lines 11-17 explain that the lighting is connected to a power source, therefore the light source is turned on when the circuit is energized from the power source.).

Regarding claim 13, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes also discloses an illuminating surface in the form of a floor or wall tile (Column 6, lines 47-56.).

Regarding claim 14, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes also discloses an illuminating surface connected to a power source (Column 4, lines 11-17.).

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes (US 6,354,714) in view of Mueller et al. (US 2005/0116667) and further in view of Starniri (US 5,099,402).

Regarding claim 5, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes and Mueller et al. fail to teach wherein the light source of the said at least one adjacent circuit is illuminated after a delay following the illumination of the light

source of the said detecting circuit, thereby giving the effect that the area of the surface that emits light in the presence of the object spreads

Starniri discloses wherein the light source of at least one adjacent circuit is illuminated after a delay following the illumination of the light source of the said detecting circuit, thereby giving the effect that the area of the surface that emits light in the presence of the object spreads (Column 5, line 66 to column 6, line 17 explain that the circuit located within the illuminating device shown in Figure 1 allows for an adjustable time delay for switching the lights on/off.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teaching of Starniri with the teachings of the combination of Rhodes and Mueller et al. in order to allow for an object's presence to be determined and the proper lighting illuminated for the duration of the objects presence.

Regarding claim 6, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes and Mueller et al. fail to teach wherein the light source of the said at least one adjacent circuit ceases to be illuminated prior to the light source of the said detecting circuit, thereby giving the effect that the area of the surface that emits light shrinks when the object is no longer touching or adjacent to the surface

Starniri discloses wherein the light source of at least one adjacent circuit ceases to be illuminated prior to the light source of the said detecting circuit, thereby giving the effect that the area of the surface that emits light shrinks when the object is no longer

touching or adjacent to the surface (Column 5, line 66 to column 6, line 17 explain that the circuit located within the illuminating device shown in Figure 1 allows for an adjustable time delay for switching the lights on/off.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teaching of Starniri with the teachings of the combination of Rhodes and Mueller et al. in order to allow for an object's presence to be determined and the proper lighting illuminated for the duration of the objects presence.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes (US 6,354,714) in view of Mueller et al. (US 2005/0116667) and further in view of Allen (GB 2 313 194 A).

Regarding claim 12, Rhodes and Mueller et al. disclose an illuminating surface as claimed in claim 4.

Rhodes and Mueller et al. fail to teach wherein the sensors are switches that are closed by the object touching the surface.

Allen discloses wherein the sensors are switches that are closed by the object touching the surface (Page 5, 4th paragraph explains that Figure 3 shows a sensor construction in which a conductive wire makes contact with the paint and provides connection to the electronic circuits, i.e. the sensor is a switch.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the sensors taught by Rhodes and Mueller et al.

into switches as taught by Allen in order to facilitate for the determination of the presence of a user by the contact of an object to the surface.

Allowable Subject Matter

9. Claims 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the primary reason for indicating allowable subject matter is the inclusion of the limitation: "wherein current from the said detecting circuit leaks to at least one adjacent circuit, thereby energizing the light source of the adjacent circuit," which is not found singularly or in combination within the prior art.

Regarding claim 9, the primary reason for indicating allowable subject matter is the inclusion of the limitation: "wherein each circuit comprises a transistor having a base terminal, the arrangement is such that the light source is illuminated when the transistor is conductive and wherein, when the sensor detects the object, the potential at the base

terminal is changed, thereby causing the transistor to become conductive," which is not found singularly or in combination within the prior art.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

12 March 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER